

EXHIBIT A
TO
DECLARATION OF TERRY KEATING, PH.D.

Curriculum Vitae
Dr. Terry Keating, President, Lucerne International
181 Stoneway Trail, Madison, AL 35758 USA

Dr. Terry Keating received a Ph.D. from the University of Wisconsin (Engineering) in 1975 and has been active in the mapping industry since then including five years in teaching and research; 17 years in mapping and GIS software development; and eight years either managing divisions of mapping and GIS firms or providing domestic and international project management and consulting.

He is currently the owner of Lucerne International, a company that provides strategic planning, marketing, quality assurance monitoring, professional consulting and project management associated with surveying, photogrammetry, image-based mapping and spatial information management.

Terry has founded three companies involved with photogrammetry, mapping and GIS software and services; Kork Systems (software), Lucerne International (consulting) and Digital Mapping Associates (mapping). He has served as an advisor to many domestic and international federal and state agencies and private mapping corporations.

During 2002-2005, he worked with Intergraph Corporation (NASDAQ: INGR) where he served as a Division Executive Vice President and the Chairman of Z/I Imaging, a wholly owned subsidiary. His focus was on earth imaging solutions including systems, software and related services used for the production, visualization and geospatial information management of maps (images, elevations or vectors) produced using space imagery, aerial photography, and other remote sensors. He also developed industry partnerships and represented Intergraph at a number of geospatial industry forums including the Open Geospatial Consortium (OGC), the Global Spatial Data Infrastructure (GSDI) organization (Board member 2004-2005), the Management Association for Private Photogrammetric Surveyors (MAPPS), The American Society for Photogrammetry & Remote Sensing (ASPRS and related International (ISPRS – Foundation Board 2005) and several US Federal mapping-related committees.

Dr. Keating is a Certified Photogrammetrist, Registered Land Surveyor and Professional Engineer. He is a past director of the Management Association for Private Photogrammetric Surveyors (MAPPS), a past president of the Maine Society of Land Surveyors (MSLS) and in 2002-3 served as the national president of the American Society of Photogrammetry and Remote Sensing (ASPRS).

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Representative Technical Consulting Project Experience

West Virginia Statewide Mapping and Addressing Program (2002-2007). Serving as the Project Manager of this \$15MM, five year program, working with the prime contractor, Michael Baker Engineers. Developed specifications, made vendor selections, negotiated contracts and provide project management, quality assurance reports and worked with Baker to conceptualize and develop a statewide system to maintain the maps and address data.

VARGIS LLC statewide orthophoto mapping programs (2001). Performed quality assurance for surveys, aerotriangulation and digital orthos for NY orthophoto mapping.

New Jersey Orthophoto Mapping Program (2001). Developed specifications and accuracy requirements for statewide orthophoto mapping coverage. Included detailed process oriented QA checks and introduced concept of web-enabled master index map to load, display and provide access to work-in-process data and acceptance of products.

Kodak – CitiPix Orthophoto Product Accuracy Evaluation (2001). Evaluated the production processes and provide an accuracy assessment of CitiPix Ortho products.

Puerto Rico Property Records Management Project (1996-2000). Evaluated the prototype mapping and cadastral records project, develop specifications, and develop QA procedures for production of 5,000 orthophoto map based large scale property maps. Served as three-year contractor and program manager for aerial photography, survey control, photogrammetric mapping, cadastral parcel conversion, GIS data loading, and the design and implementation of all quality assurance processes.

Intermap Technology, Calgary, Alberta (2000). Coordinated and presented U.S. marketing survey to assess the sales potential for DEM collection using Interferometric Synthetic Aperture Radar (IFSAR).

Texas Digital Orthophoto Quad Project (1996-1998). Developed and monitored QA/QC implementation and assurance procedures for all DOQQs being produced and delivered to Texas by various surveying and mapping firms. All deliverables have been guaranteed to meet USGS DOQ specifications.

Venezuela National Government, Caracas (1999). As a World Bank consultant, helped to develop the systems and workflows necessary to combine all surveying, mapping, remote sensing and cadastral mapping operations from three agencies (and a University) into one cohesive National Mapping Agency.

Tennessee Parcel Level Geographic Information System (1996). Developed a white paper with TVA and the Division of Property Assessments to plan for statewide mapping and parcel conversion. Discussed issues of cost recovery, standards, data structure, maintenance, distribution, system requirements, and use of USGS NDOP specifications.

Virginia Department of Transportation (1995). Served as the technology assessment consultant for Michael Baker Engineers and helped to develop the DOT five-year strategic plan.

Education

Ph.D. Photogrammetry, Remote Sensing, Surveying, University of Wisconsin-Madison,
Minor in Numerical Statistics, 1975.

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M.S. Remote Sensing, (CEE), UW-Madison, 1971
B.S. Civil and Environmental Engineering (Water Resources), UW-Madison, 1970

Professional Membership

American Society for Photogrammetry and Remote Sensing), President 2002-3.
Maine Society of Land Surveyors, President 1980.
MAPPS - Management Association of Practicing Photogrammetrists, Director 2000-2002.
Mapping Sciences Committee, National Academy of Science (1995-1997).

Professional Registration

Professional Engineer (PE) (1976-present) Wisconsin
Registered Land Surveyor (RLS) (1976-present) Maine
Certified Photogrammetrist (1998-present)

Presentations and Publications

1. MAPPS Winter Meeting, Puerto Rico, 1999; *Coordinating The CRIM Orthophoto, Vector And Parcel Mapping Conversion Project 1996-1999.*
2. MAPPS Winter Meeting, Jamaica, 2001; *The Effects Of University Competition On Private Sector Mapping Firms.* Panel Chair.
3. ASPRS Fall Meeting, Providence, December 2000. Strategic Planning; *The Process and the Plan.* Developed and facilitated a 4-hour planning session with society leadership.
4. GeoData Forum. *Trends Toward the Commercialization of Spatial Data.* PowerPoint presentation. Wash DC, June 1999.
5. NAPA – Washington DC, Cosmos Sept.1997. *"My Perspective of the Upcoming 1997 National Academy of Administration Geographic Information Study"*
6. *Issues Paper, Tennessee's Parcel GIS*, with Roger Gilliam, Division of Property Assessments and Allen Voss, TVA, Nashville, TN, November 1996.